

IN THE CLAIMS:

Please replace claims 1-59 with the following claims:

60. (NEW) A flexible thermal control composite comprising an endothermic agent distributed, dispersed and suspended in a polymer having a molecular structure consisting of long chains of mostly linear molecules which prior to curing provide interstitial spaces through which the endothermic agent is distributed, dispersed and suspended and become fixed therein on curing.
61. (NEW) The flexible thermal control composite of claim 60, further comprising a thermally conductive material contacted to said flexible thermal control composite.
62. (NEW) The flexible thermal control composite of claim 60, wherein the endothermic agent is recyclable.
63. (NEW) The flexible thermal control composite of claim 60, wherein the endothermic agent is micronized.
64. (NEW) The flexible thermal control composite of claim 60, wherein said endothermic agent is selected from the group consisting of oxidized polymers, unoxidized polymers, oxidized homopolymers of ethylene polymer compounds, unoxidized homopolymers of ethylene polymer compounds, carbon monoxide-bonded copolymers, micronized polyethylene waxes, petroleum derived waxes, ethylene-bis-stearamide, N,N-ethylene-bis-stearamide, tars, high molecular weight oils, high molecular weight hydrocarbons, polyvinyl alcohols, oxidized polyethylene homopolymers, unoxidized polyethylene homopolymers, carnauba wax, aluminum hydroxide, calcium hydroxide, potassium hydroxide, lithium hydroxide, boric acid, paraldehyde, paraformaldehyde, trioxane, lithium formate, lithium acetate, lithium carbonate, calcium carbonate, silicon carbonate, magnesium carbonate, sodium bicarbonate, salts of acetic acid, salts of formic acid, salts of boric acid, lithium chloride trihydrate, lithium nitrate trihydrate, sodium carbonate decahydrate, sodium borate decahydrate, hydrated epsom salts, magnesium nitrate hexahydrate, beryllium sulfate tetrahydrate, sodium phosphate dodecahydrate,

calcium chloride hexahydrate, zinc sulfate heptahydrate, magnesium chloride hexahydrate, sodium sulfate decahydrate, aluminum oxide trihydrate, aluminum sulfate decahydrate, aluminum fluoride trihydrate, aluminum nitrate nonhydrate and any eutectic blends of any of these materials including salts with melting points below 550 degrees Celsius.

65. (NEW) The thermal control composite of claim 60, wherein said recyclable endothermic agent is selected from the group consisting of oxidized polymers, unoxidized polymers, oxidized homopolymers of ethylene polymer compounds, unoxidized homopolymers of ethylene polymer compounds, carbon monoxide-bonded copolymers, micronized polyethylene waxes, petroleum derived waxes, ethylene-bis-stearamide, N,N-ethylene-bis-stearamide, tars, high molecular weight oils, high molecular weight hydrocarbons, polyvinyl alcohols, oxidized polyethylene homopolymers, unoxidized polyethylene homopolymers, carnauba wax, glycerin, glycol, and glycerin/glycol hydrated salts and any eutectic blends of any of these materials including salts with melting points below 550 degrees Celsius.

66. (NEW) The flexible thermal control composite of claim 63, wherein the endothermic agent is recyclable.

67. (NEW) The flexible thermal control composite of claim 66, wherein said recyclable, micronized, endothermic agent is selected from the group consisting of oxidized polymers, unoxidized polymers, oxidized homopolymers of ethylene polymer compounds, unoxidized homopolymers of ethylene polymer compounds, carbon monoxide-bonded copolymers, micronized polyethylene waxes, petroleum derived waxes, ethylene-bis-stearamide, N,N-ethylene-bis-stearamide, tars, high molecular weight oils, high molecular weight hydrocarbons, polyvinyl alcohols, oxidized polyethylene homopolymers, unoxidized polyethylene homopolymers, carnauba wax, glycerin, glycol, and glycerin/glycol hydrated salts and any eutectic blends of any of these materials including salts with melting points below 550 degrees Celsius.

68. (NEW) The flexible thermal control composite of claim 62, wherein said recyclable endothermic agent is a phase change material.

69. (NEW) The flexible thermal control composite of claim 60, wherein said polymer is selected from the group consisting of natural and synthetic polymers.

70. (NEW) The flexible thermal control composite of claim 60, wherein said polymer is selected from the group of polymers consisting of latexes, fluoropolymers, expanded fluoropolymers, fluoroelastomers, elastomers polyimides, polyesters, high density polymers, polyamides, polyarylates, polyetherimides, polyketones, polyphenylene oxides, polyphenylene sulfides, polyphenylsulfones, polysulfones, acetals, nylons, ABS, polyetheretherketones, phenolics, polystyrenes, polycarbonates, polyethylenes, polypropylenes, acrylics, polyurethanes, polyvinyls, polyvinylchlorides, and the mixtures thereof.

71. (NEW) The flexible thermal control composite of claim 60, in the form of a film.

72. (NEW) The thermal control composite of claim 71, wherein said film has a thickness of 0.05 to 2.0 mil.

73. (NEW) The thermal control composite of claim 71, wherein said film contains said endothermic agent in an amount of 0.0001 and 1.2 grams per square inch.

74. (NEW) The thermal control composite of claim 60, in the form of a molded structure.

75. (NEW) The thermal control composite of claim 74, wherein said molded structure contains said endothermic agent in an amount of 0.05 to 6% by weight of said molded structure.

76. (NEW) The thermal control composite of claim 60, wherein said polymer is a fluoro elastomer.

77. (NEW) The thermal control composite of claim 60, wherein said polymer is a silicone.

78. (NEW) The thermal control composite of claim 60, wherein said polymer is a fluoroelastomer and said endothermic agent is boric acid.